waste water before discharging into the adjoining land/water ways; prevention of conversion of paddy fields and ecologically fragile mangrove and other ecosystems into shrimp farms; prevention of leaching of saline water into adjoining agricultural and ground water/drinking water sources, etc.

The Department of Agriculture and Cooperation in the Ministry of Agriculture set up a committee for drafting guidelines spelling out the environmental safeguards for shrimp aquaculture and measures for protecting the rights of the local community including fishermen and other user groups. On the advice of the Government of India, the Government of Tamil Nadu and Andhra Pradesh set up Expert Groups to study the situation in areas where there is increased shrimp aquaculture activity and to chalk out strategies for developing coastal aquaculture as an eco-friendly activity.

On the basis of the suggestions of these Expert Groups, the Government of Tamil Nadu has already enacted a law in the State Legislative Assembly on 20/3/1995 and the Government of Andhra Pradesh are in the process of finalising the draft legislation for regulating shrimp aquaculture activity in the respective States. They have enable previsions for correcting any social or environmental imbalances caused by shrimp aquaculture.

Shortage of pulses

2851. SHRI VERRA NARAYANASWAMY: Will the Minister of AGRICULTURE be pleased to state:

(a) what are the projected supply and demand figures for pulses in the country by 2000 A. D.; and

(b) the steps Government have taken to introduce a reliable system of forecasting of agricultural production?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI ARVIND NETAM): (a) The Eighth Five Year Plan has projected the estimated production of pulses at 17.00 million tonnes for the year 1996-97. Taking into consideration the present trend in development and growth of pulses, its production by the year 2000 A. D. may be projected at about 18.00 million tonnes It is difficult to project exact demand of pulses for the year 200 A.D. as it would depend on behaviour of various factors including growth of population, increase in per capita income, availability of substitutes.

(b) In order to make reliable forecast of agricultural production, the Government has built up a system of forecasting of monsoon which is the major factor influencing the crop production. It has also constituted Weather Watch Group and a system of continuous monitoring of weather and crop conditions in vartous States besides developing crop forecasting models based on crop weather relationships.

Production of cotton in Gujarat

2852. SHRIMATI ANANDIBEN JETHABHAI PATEL: Will the Minister of AGRICULTURE be pleased to state:

(a) whether cotton is grown as an important commercial and synthetic crop in Gujarat State;

(b) if so, the total area under cotton cultivation during the Eighth and Ninth duction of cotton during 1993-94;

(c) whether Government have a proposal to increase the areas under cotton cultivation during the Eighth and Ninth Plan-period in the State and also in other parts of the country; and

(d) if so, the other areas identified in the State for the purpose?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI ARVIND NETAM): (a) Cotton is an important commercial crop in Gujarat State.

(b) The total area under cultivation and production of cotton during 1993-94 in the State of Gujarat was 1126 thousand hectares and 1622.8 thousand bales of 170 kgs. each respectively.

(c) The approach of the Government for increasing cotton production is to improve the yield per hectare rather than expending the area, through the implementation of the Scheme entitled "Intensive Cotton Development Programme (ICDP)".

(d) Does not arise.